Electronic Supplementary Material (ESI) for Dalton Transactions.

A New Heptadentate Picolinate–Based Ligand and Its Corresponding Gd(III) Complex: the Effect of Picolinate *versus* Acetate Pendant on Complex Property

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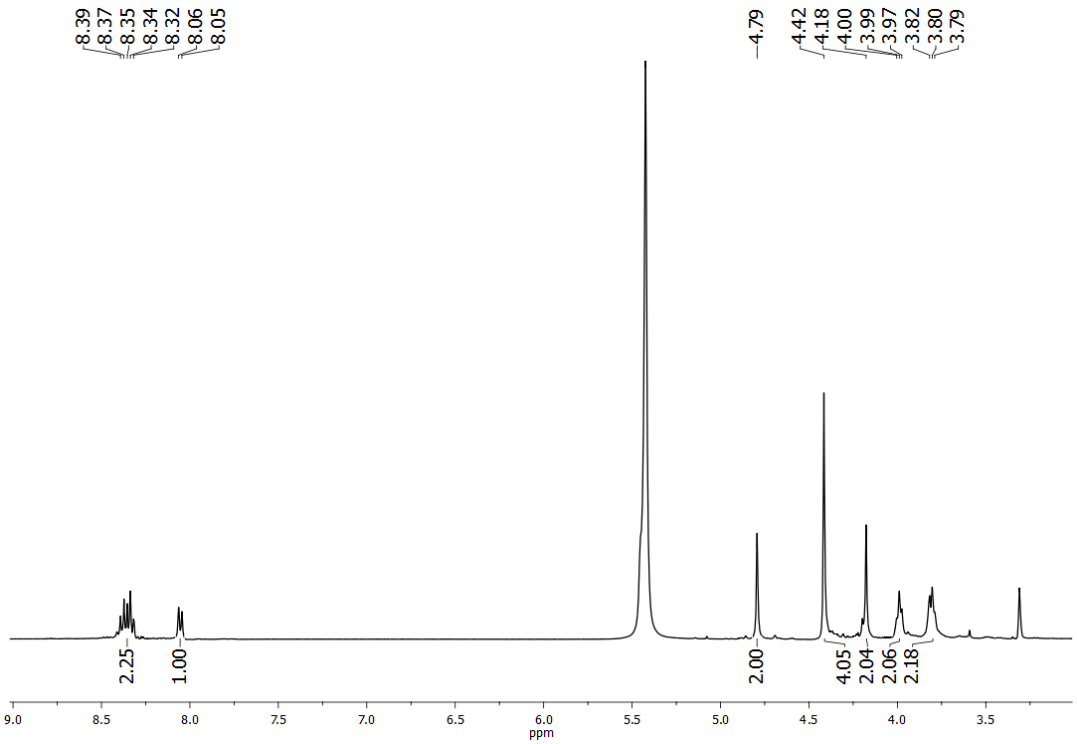

Figure S1. ^{1}H NMR spectrum of H_4peada measured in CD_3OD solvent.

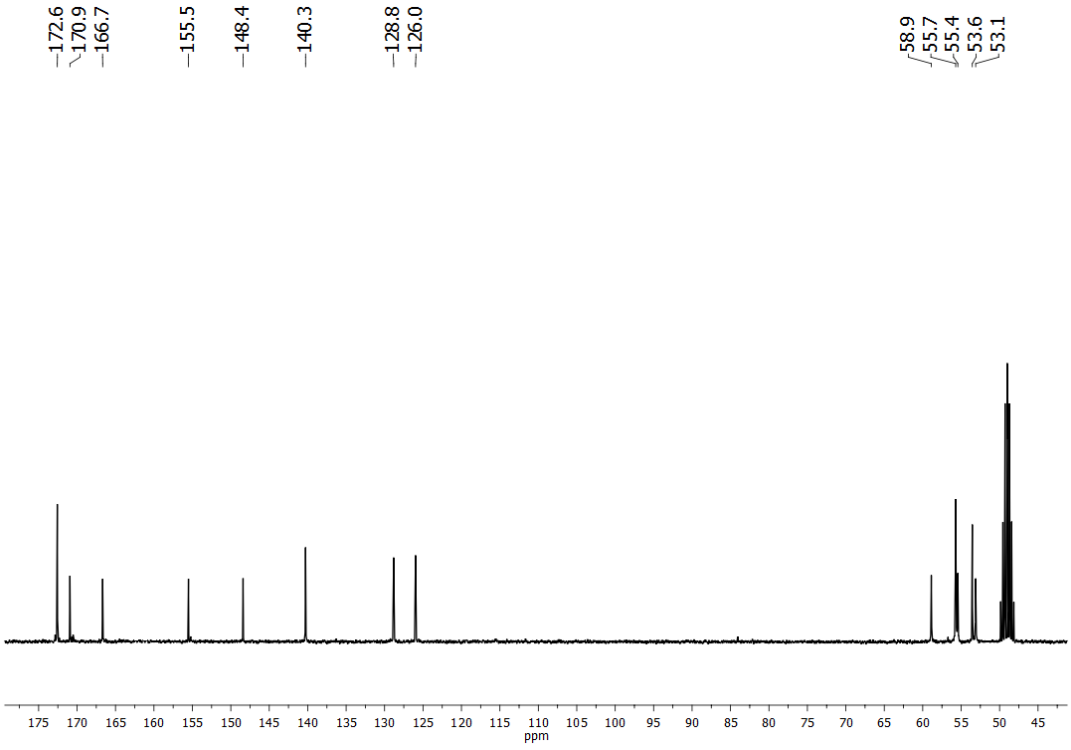

Figure S2. ^{13}C NMR spectrum of ligand H_4peada measured in CD_3OD solvent.

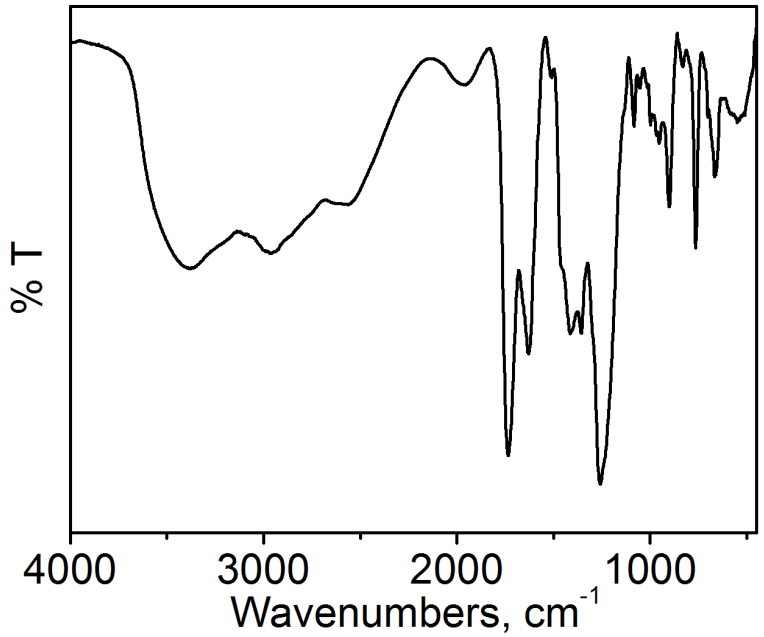

Figure S3. FTIR spectrum of ligand H_4peada.

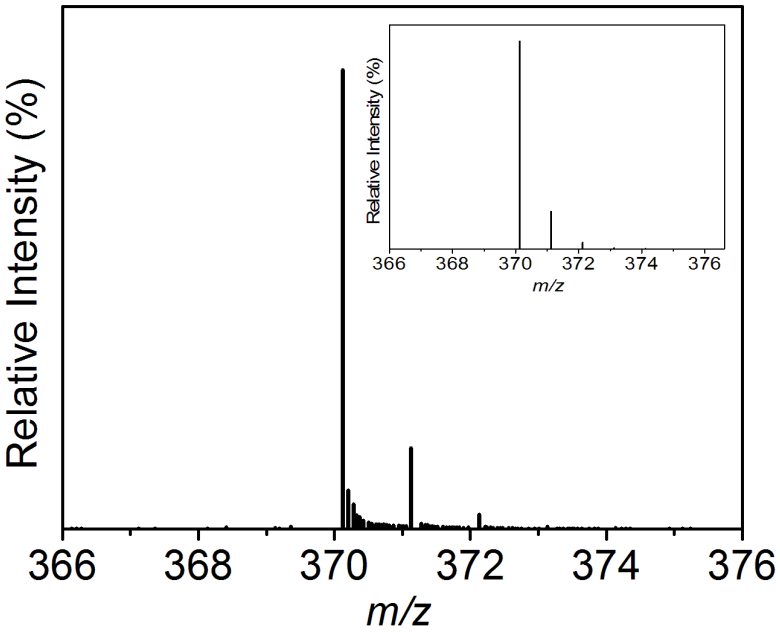

Figure S4. ESI–MS (+ve) mass spectrum of ligand H_4peada. Simulated spectrum has been given as inset.

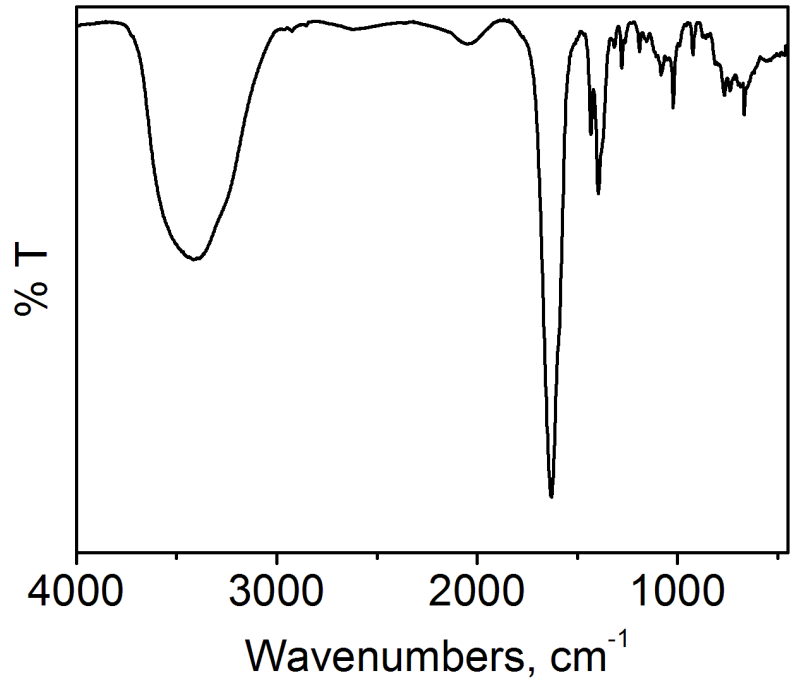

Figure S5. FTIR spectrum of complex **1**.

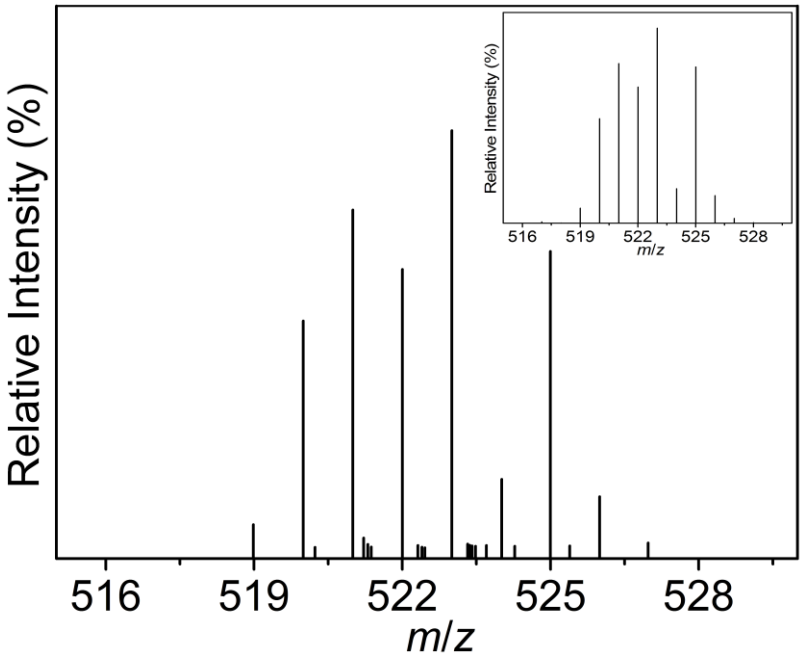

Figure S6. ESI–MS (–ve) mass spectrum of complex **1**. Simulated spectrum has been given as inset.

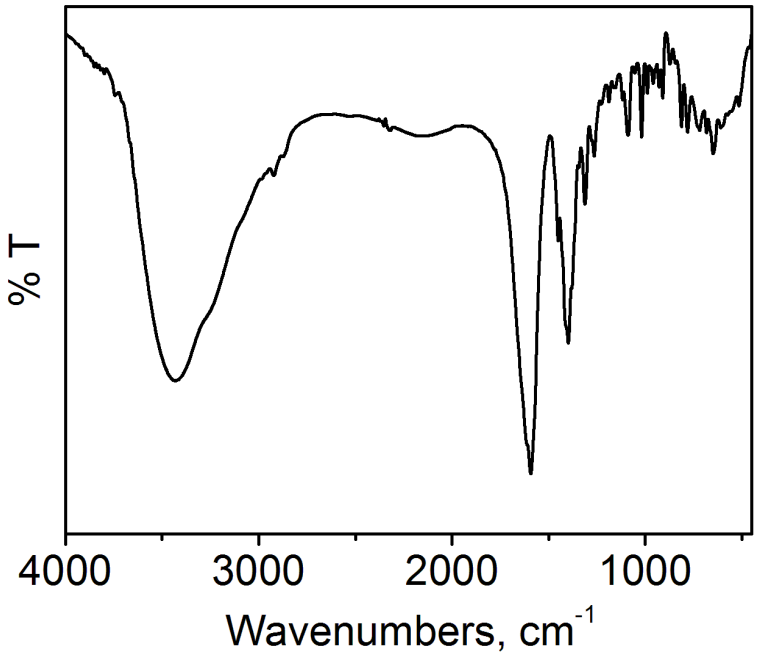

Figure S7. FTIR spectrum of complex **2**.

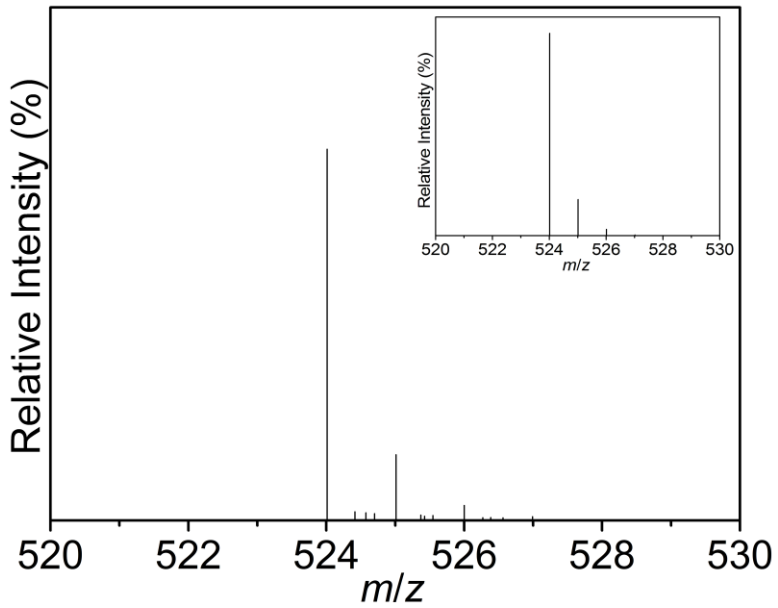

Figure S8. ESI–MS (–ve) mass spectrum of complex **2**. Simulated spectrum has been given as inset.

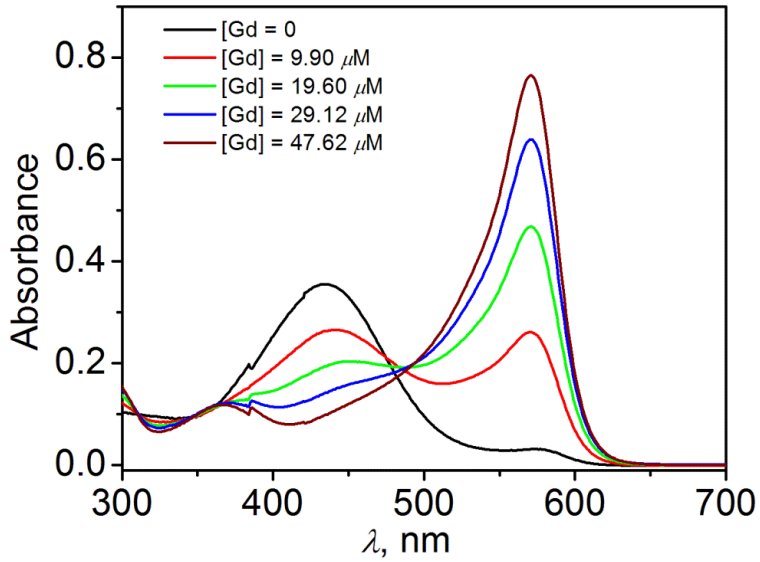

Figure S9. UV–vis spectrum of xylenol orange solution in acetate buffer (pH = 5.8) in the presence of varied concentrations of Gd(III) ions, from zero to 47.62 μM.

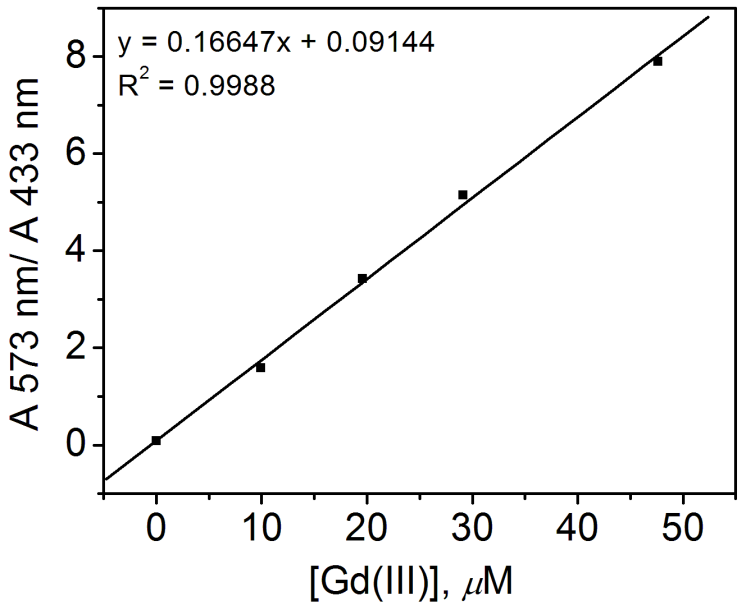

Figure S10. Calibration curve obtained from the spectrophotometric changes of xylenol orange (in acetate buffer, pH = 5.8) absorptions in the presence of varied concentrations of Gd(III) ions. For 50 μL of complex **1** ([complex **1**] = 27.5 mM) in 2.0 mL xylenol orange solution (pH = 5.8), A573 nm/A433 nm = 0.0987.